What is claimed is:

1. A method for forewarning a driver of a potential collision comprising the steps of:

(a) determining a driving style of a driver;

(b) determining timing for issuing a warning based on the determined driving style; and

(c) issuing the warning based on the determined timing.

2. The method of claim 1, wherein the step of (a) comprises the steps of:

(d) collecting data corresponding to at least one parametric model (PM) relating to a driver attitude level;

(e) applying pre-determined algorithm to the collected data to determine at least one parametric model value; and

(f) determining the driver attitude level value based on the at least one parametric model value.

3. The method of claim 1, wherein the step of (a) comprises the steps of:

(g) collecting data relating to a plurality of drivers' actions in a plurality of driving conditions; and

(h) determining the driving style of a driver based on the collected data.

4. The method of claim 1, wherein the step of (c) involves issuing at least one perceptible signal.

5. The method of claim 4, wherein the perceptible signal includes at least one of an audio signal, a visual signal, and a tactile signal.

6. The method of claim 1, wherein the step of (a) comprises the steps of:

(i) collecting data corresponding to a plurality of parametric models (PMs) relating to driver attitude level of an individual driver;

(j) determining parametric model (PM) value distribution for each PM from the collected data;

(k) determining an average value for each PM value distribution; and

(l) determining a parametric-specific attitude level for each PM by mapping the average value for each PM value distribution to a pre-determined scale specific to each PM.

7. The method of claim 6, wherein the step of (i) is performed by at least one sensor of an automobile.

8. The method of claim 6, wherein the step of (j) is performed by applying pre-determined algorithm corresponding to each of the PMs.

9. The method of claim 6, wherein the step of (j) includes selecting the collected data based on pre-determined criteria specific to each of the PMs.

10. The method of claim 6, wherein the step of (j) includes calculating percentile values representing the PM value distribution.

11. The method of claim 6 further comprising the step of:

(m) averaging weighted values of parametric-specific attitude level for all PMs, wherein each of the weighted values of parametric-specific attitude level is derived by multiplying the parametric-specific attitude level with a pre-determined weight corresponding to relevance of the PM to the driver attitude level.

12. The method of claim 6, wherein the parametric models (PMs) in the step of (i) includes at least one of: host vehicle velocity (*hostv*) PM for capturing how fast a driver drives in an absence of a lead vehicle, acceleration (*host-acc*) PM for capturing acceleration profile as a function of *hostv*, and driver's allowable response time (T_{ares}) PM for capturing how much time the driver is allowed to react to an extreme stop condition without colliding with a lead vehicle.

13. The method of claim 12, wherein the step of (i) includes collecting data corresponding to *hostv* parametric model based on criteria including: no lead vehicle, *hostv* being greater than a pre-determined speed, and no lane change.

14. The method of claim 13 wherein the step of (j) includes calculating from the collected data, *hostv* PM value distribution for percentiles

from 0 to 100, wherein the step of (k) includes obtaining an average value of *hostv* PM values.

15. The method of claim 12, wherein the step of (i) includes collecting data corresponding to *host-acc* based on criteria including: *host-acc* being greater than a pre-determined rate, and no lane change.

16. The method of claim 15, wherein the step of (j) includes calculating from the collected data, *host-acc* PM value distribution for percentiles from 0 to 100, and wherein the step of (k) includes obtaining an average value of *host-acc* PM values.

17. The method of claim 12, wherein step (j) includes calculating T_{ares} values using equation I:

$$
\begin{aligned}
0 = {} & \left[\frac{a_{\max}}{2}\left(1+\frac{a_{\max}}{d_{\max}}\right)\right]T_{ares}{}^{2} + \\
& + \left[host\_v\left(1+\frac{a_{\max}}{d_{\max}}\right)+\left(\frac{a_{\max}sum_{ad}}{J_{\max}}\right)+\frac{a_{\max}}{2d_{\max}J_{\max}}\left(2a_{\max}sum_{ad}-sum_{ad}^{2}\right)\right]T_{ares} \\
& + \left[\begin{array}{l}\left(\dfrac{hostv^{2}-leadv^{2}}{2d_{\max}}\right)+\dfrac{sum_{ad}hostv}{J_{\max}}\left(1+\dfrac{1}{d_{\max}}\left(a_{\max}-\dfrac{sum_{ad}}{2}\right)\right)+ \\ \dfrac{sum_{ad}^{2}}{2J_{\max}^{2}}\left(a_{\max}-\dfrac{sum_{ad}}{3}\right)+\dfrac{1}{2d_{\max}}\left(\dfrac{2a_{\max}sum_{ad}-sum_{ad}^{2}}{2J_{\max}}\right)^{2}-range\end{array}\right]
\end{aligned}
$$

where $a_{\max}$ is a maximum acceleration, $d_{\max}$ is a maximum deceleration, $J_{\max}$ is a maximum allowed jerk, and sum_{ad} is a summation of $a_{\max}$ and $d_{\max}$.

18. The method of claim 17, wherein $a_{\max}$, $d_{\max}$, and $J_{\max}$ are constants.

19. The method of claim 17, wherein the step of (j) further includes selecting T_{ares} values based on criteria comprising: no lead vehicle, no lane change, lead vehicle velocity(*leadv*)-*hostv* being less than 5 mph for 1 second, and $T_{ares} < \overline{T_{ares}} + (2 * std(T_{ares}))$, where $\overline{T_{ares}}$ is an approximate average

and $std(T_{ares})$ is an approximate standard deviation, of all selected T_{ares} data.

20. The method of claim 19, wherein the step of (k) further includes calculating T_{ares} PM value distribution for percentiles from 0 to 100, and wherein the step of (l) includes obtaining an average value of T_{ares} PM values.

21. The method of claim 6, wherein the parametric models (PMs) in the step of (i) include host vehicle velocity (*hostv*) PM for capturing how fast a driver drives in an absence of a lead vehicle, acceleration (*host-acc*) PM for capturing acceleration profile as a function of *hostv*, and drive's allowable response time (T_{ares}) PM for capturing how much time the driver is allowed to react to an extreme stop condition without colliding with a lead vehicle;

wherein the step of (j) includes determining PM value distribution for *hostv* PM, *host-acc* PM, *and* T_{ares} PM;

wherein the step of (k) includes determining an average value for *hostv* PM, *host-acc* PM, *and* T_{ares} PM; and wherein the step of (l) includes determining a parametric-specific attitude level for *hostv* PM, *host-acc* PM, *and* T_{ares} PM.

22. The method of claim 12 further comprising the steps of:

calculating a weighted value of *hostv* PM by multiplying the corresponding parameter-specific driver attitude level with a pre-determined weight corresponding to *hostv* PM;

calculating a weighted value of *host-acc* PM by multiplying the corresponding parameter-specific driver attitude level with a pre-determined weight corresponding to *host-acc* PM;

calculating a weighted value of T_{ares} PM by multiplying the corresponding parameter-specific driver attitude level with a pre-determined weight corresponding to T_{ares} PM; and

averaging the weighted values of *hostv* PM, *host-acc* PM, and T_{ares} PM to create an overall driver attitude level.

23. The method of claim 22 further comprising the step of:

(n) determining timing for issuing warning based on the overall driver attitude level.

24. A system integrated in a vehicle for forewarning a driver of a potential collision comprising:

a first device for collecting data associated with driver attitude;

a second device for determining driver attitude level comprising:

software connected to the first device for enabling storing of the collected data;

a processor connected to the software for processing the stored data by applying pre-determined algorithm to determine a driver attitude level; and

a third device connected to the second device for performing an action responsive to the driver attitude level.

25. The system of claim 24, wherein the first device is capable of collecting data corresponding to a driver's actions in a plurality of driving conditions.

26. The system of claim 24, wherein the first device is capable of collecting data corresponding to actions from a plurality of drivers.

27. The device of claim 24, wherein the first device is a sensor connected to an automobile.

28. The system of claim 24, wherein the second device further comprising software for enabling selection of data according to pre-determined criteria; and wherein the processor is capable of processing the selected data.

29. The system of claim 24, wherein the third device comprises:

software for enabling a determination of the timing for issuing warning responsive to the driver attitude level.

30. The system of claim 29, wherein the third device further comprises an alarm for generating a perceptible signal.

31. The system of claim 30, wherein the alarm is selected from the group comprising an audio alarm, a visual alarm, and a tactile alarm.

32. The system of claim 24, wherein the third device is integrated in a cruise control of the vehicle.

33. The system of claim 32, wherein the third device comprises software for enabling a determination of rate of change of speed in terms of acceleration and deceleration responsive to the driver attitude level; and an acceleration and deceleration control for adjusting the rate of change of speed in terms of acceleration or deceleration based on the determined rate of change.

34. The system of claim 32, wherein the third device comprises software for enabling a determination of a safety distance from another vehicle based on the driver attitude level, a distance control for maintaining the distance from the other vehicle based on the determined safety distance.

35. The system of claim 34, wherein the third device includes an alarm for warning the driver when the determined safety distance is violated.

36. A method for forewarning a driver of a potential collision comprising the steps of:

(a) collecting data corresponding to at least one parametric model associated with a driver's aggression level;

(b) applying pre-determined algorithm to the data to determine the driver's aggression level;

(c) determining timing for issuing warning corresponding to the driver's aggression level; and

(d) issuing a warning based on the determined timing.